

**REMARKS/ARGUMENTS**

Claims 1-22 remain in this application. Claims 1-19 have been withdrawn due to a restriction requirement. Thus, claims 20-22 have been examined.

Claims 1-2, 7-8, and 17 were amended to correct minor typographical errors.

Claim 20 was amended to remove the phrase “an agent capable of antagonizing, inhibiting or otherwise interfering with the function or expression of a protein or polypeptide as defined in Tables 2-4.” The claim to a method for treatment or prophylaxis of *S. pneumoniae* infection as amended is limited to administering a polypeptide of SEQ. ID NO: 162 to a patient in need thereof. This amendment is in no way a disclaimer of the full scope of the invention, and Applicants reserve the right to pursue the full scope of the invention in divisional applications.

Claim 21 was amended in the interest of expediting prosecution and to be consistent with amended claim 20 from which it depends, and not for reasons related to patentability.

Applicants respectfully request entry of the above amendments and submit that the above amendments do not constitute new matter. Support for the amendments may be found in the specification, for instance at pages 18-28, and Figs. 1 and 2, and throughout the application as originally filed.

**Claim Rejections under 35 U.S.C. § 112, second paragraph**

Claim 20 remains rejected under 35 U.S.C. § 112, second paragraph on the grounds that the recitation of “capable of” is vague.

Applicants amend claim 20 to remove the “capable of” language. Thus, Applicants respectfully submit that this amendment overcomes the Examiner’s rejection, because claim 20 no longer recites the phrase the Examiner rejected as vague.

**Claim Rejections under 35 U.S.C. § 112, first paragraph**

Claims 20-22 stand rejected under 35 U.S.C. § 112, first paragraph on the grounds that the specification does not reasonably convey to one skilled in the relevant art that the inventors,

at the time the application was filed, had possession of the claimed invention. This rejection is respectfully traversed.

The Examiner states that claim 20 reads on any use of SEQ. ID NO. 162 (page 5). The Examiner acknowledges that mice vaccinated with a protein of SEQ. ID NO. 162 survived longer than the control mice, but asserts that the mice are not protected from infection as claimed (page 5). The Examiner also asserts that agents capable of antagonizing, inhibiting, or otherwise interfering with the function or expression of any protein or polypeptide as defined in Tables 2-4 except SEQ. ID NO. 162 are not adequately described in the specification (pages 5-6).

Claims 20-22 also stand rejected under 35 U.S.C. § 112, first paragraph on the grounds that the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with the claims. This rejection is respectfully traversed.

The Examiner acknowledges that the specification is enabled for a method of treating *S. pneumoniae* infection comprising administering to a patient SEQ. ID NO. 162 (page 7), but asserts that the specification provides no working examples demonstrating enablement for an *in vivo* uses of any other agents capable of antagonizing, inhibiting, or otherwise interfering with the function or expression of a protein or polypeptide as defined in Tables 2-4 (pages 7-8). The Examiner also asserts that the mice administered with SEQ. ID NO. 162, which survived longer than control mice, are not protected from infection as claimed (page 8). Thus, the Examiner asserts that it is unclear whether this approach is feasible in preventing *S. pneumoniae* infection (page 8).

Applicants respectfully submit that the claims as filed are adequately supported by the specification. Nonetheless, in the interest of expediting prosecution, Applicants amend the claims to remove the phrase “an agent capable of antagonizing, inhibiting or otherwise interfering with the function or expression of a protein or polypeptide as defined in Tables 2-4.” Applicants respectfully submit that the application as filed enables persons of ordinary skill in the art to make and use the claimed invention without undue experimentation. In particular, Applicants submit that this amendment overcomes the Examiner’s rejection for lack of written

support and/or enablement for agents other than SEQ ID NO: 162 because amended claim 20 is limited to “a polypeptide of SEQ. ID NO: 162.”

Applicants also respectfully submit that the specification provides both written support and enablement for a method for the treatment or prophylaxis of *S. pneumoniae* infection comprising administering to a patient in need thereof a polypeptide of SEQ ID NO: 162. The experimental results demonstrate that mice immunized with plasmid DNA encoding polypeptides of the invention survived longer than mice immunized with control DNA (see, e.g., pages 25-28 and Figs. 1 and 2). Thus, the polypeptides protected the immunized mice against the deleterious effects of the bacteria for a measurable period of time as compared to control mice. This indicates that the polypeptides of the invention indeed have a prophylactic effect and are suitable for vaccines. Moreover, the polypeptides were administered without further excipients, such as adjuvants taught in the specification on pages 9-11, which one skilled in the art would recognize as likely increasing the effect of these vaccine candidates.

For at least the foregoing reasons, Applicants respectfully submit that claims 20-22 are adequately supported by the specification and enable one of ordinary skill in the art to make and use the invention commensurate in scope with the claims.

#### **Claim Objections under MPEP 2173.05(s)**

Claim 20 was objected to under MPEP 2173.05(s). The Examiner asserts that, by incorporating by reference Tables 2-4, claim 20 is not defined clearly (page 10-11).

As noted above, in the interest of expediting prosecution, Applicants amend claim 20 to remove the phrase “an agent capable of antagonizing, inhibiting or otherwise interfering with the function or expression of a protein or polypeptide as defined in Tables 2-4.” Applicants respectfully submit that this amendment overcomes the Examiner’s objection because claim 20 no longer incorporates by reference Tables 2-4.

APPLICATION NO.: 09/769,787  
AMDT. DATED: DECEMBER 12, 2003  
REPLY TO OFFICE ACTION OF JULY 17, 2003

### CONCLUSION

Applicants respectfully request entrance of the above claim amendments. In view of the above remarks, early notification of a favorable consideration and allowance of all claims is respectfully requested.

If after this amendment there are issues remaining which discussion could advance prosecution, Applicants respectfully request that the examiner call the undersigned attorney at the phone number listed.

Respectfully submitted,

Dated: December 12, 2003

By:



Laurence H. Posorske  
Registration No. 34,698  
David A. Kelly  
Registration No. 53,106

HUNTON & WILLIAMS  
1900 K Street, N.W.  
Suite 1200  
Washington, D.C. 20006-1109  
Telephone: (202) 955-1500  
Facsimile: (202) 778-2201